




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,343	12/08/2003	David A. Furth	SP-1693.1 US	1762
20875	7590	09/08/2004	EXAMINER	
ROBERT W WELSH EVEREADY BATTERY COMPANY INC 25225 DETROIT ROAD P O BOX 450777 WESTLAKE, OH 44145			HAN, JASON	
			ART UNIT	PAPER NUMBER
			2875	
DATE MAILED: 09/08/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/730,343	FURTH ET AL.	
	Examiner	Art Unit	
	Jason M Han	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17, 20-22, 25-27 and 35-41 is/are rejected.
- 7) ☐ Claim(s) 4-6, 14, 15, 18, 19, 23, 24, 28-34, 36, 37 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because in Figures 13A, 14A, and 15A the reference numbers (1146) should rather read (1346) with regards to the bridge conductors. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is

requested in correcting any errors of which applicant may become aware in the specification.

3. The disclosure is objected to because of the following informalities:
 - a. Page 22, Line 16: should read as battery locations 1305 and 1306;
 - b. Page 22, Line 21: should read as battery locations 1305 and 1306;
 - c. Page 22, Line 28: should read as battery locations 1305 and 1306.

Appropriate correction is required.

Regarding the following claim objections and rejections, the applicant should be aware that the claims are broad and have been interpreted as such by the examiner, wherein the limitations have been read to the best of the examiner's ability.

Claim Objections

4. Claims 4-6 are objected to because of the following informalities: The claims are convoluted and confusing – reference to a “positional contact within a receptacle” or other means of elucidation should enable the reader to clearly grasp what is being claimed with regards to a “first one of the at least two first battery contacts”.
5. Claims 5-6 and 36 are objected to because of the following informalities: It is unclear if the first position of said switch electrically couples the first battery and second position of said switch electrically couples the second battery to a light source. The examiner requests elucidation.

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6. Claim 6 is further objected to with respect to “associated,” which renders the claim as broad and indefinite. Please be distinct in the limitations – the examiner has assumed that “associated” means electrical communication.

7. Claims 15 and 37 are objected to because the term “two dimensions” is indefinite. It is assumed that the applicant is referring to a contact being spaced away at a certain height, length, and width. Please elucidate.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The last limitation is convoluted and unclear. It is under the suggestion that the following limitation be similarly rendered: “at least two bridge conductors, each of the bridge conductors having a pair of bridge contacts, wherein one of said bridge conductors electrically couples a first one of said conductive leaf springs with a second one of said conductive leaf springs when said apex of each conductive leaf spring is displaced equally by their corresponding batteries that are of equal size, and said bridge conductors further preventing a closing of an electrical circuit for said light source when said apex of each conductive leaf spring is displaced at different distances by their corresponding batteries that are of distinct sizes.” The current rendition is confusing following the final comma wherein the examiner prefers that the applicant again

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distinctly state the reason as to why there is prevention of a closing of said electrical circuit (e.g. conductive leaf springs not connecting to said bridge contacts of a bridge conductor rather than a switch).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-8, 13, 15-17, 27, 35-38, and 40-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Gonzales (U.S. Patent Number 5167447).
10. With regards to Claim 1, Gonzales discloses a flashlight comprising of a light source [Figure 4: (16)]; a housing [Figure 4: (12, 34)]; at least two battery locations internal of said housing wherein each location is capable of accommodating different battery sizes [Figure 4: (18, 42)]; and an electro-mechanical structure [Figure 4: (22, 26) - switch] that prevents a closing (on/off of switch) of an electrical circuit that electrically couples said of at least two batteries to said light source when the at least two batteries are of distinct sizes [Column 4, Lines 9-13; 37-49].
11. With regards to Claim 2, Gonzales discloses an electro-mechanical structure that comprises a switch [Figure 4: (22, 26)]. Please further note Figure 4 with respect to a circuit that may not be closed by said switch (22, 26) in the off position and has two distinct battery sizes C and D.

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12. With regards to Claim 3, Gonzales discloses in Figure 4 two batteries (C, D) distinctly positioned wherein both have two electrical contacts (top and bottom).

13. With regards to Claim 4, Gonzales discloses a first battery contact of said first battery [Figure 4, (C-cathode)] and a first battery contact of said second battery [Figure 4, (D-cathode)] being in contact with said first battery. Gonzales further discloses a second battery contact of said first battery [Figure 4, (C-anode)] and a second battery contact of said second battery [Figure 4, (D-anode)] being in contact with said second battery. Please note that said first and second batteries are of predetermined sizes (C) and (D).

14. With regards to Claim 5, Gonzales discloses a switch that electrically couples said first and second battery contacts [anode, cathode] of a first and second battery [Figure 4, (C, D)]. As noted above in the objections to the claims, it is unclear how the circuit is electrically coupled with regard to position of switch.

15. With regards to Claim 6, Gonzales discloses a third battery [Figure 5: (AA)] with two battery contacts [anode and cathode; see also (34A, 34B)] associated (electrical communication) with first and second battery contacts of two other batteries.

16. With regards to Claim 7, Gonzales discloses a retaining member internal of a housing and capable of impinging upon said at least two batteries when they are positioned in said at least two battery locations [Figure 4, (20, 32)].

17. With regards to Claim 8, Gonzales discloses a retaining member comprising a spring [Figure 2: (20)] that extends between the housing [Figure 2, (19)] and the at least two battery locations [Figure 2, (D)].

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18. With regards to Claim 13, Gonzales discloses a first battery contact of said first battery [Figure 4, (C-cathode)] and a first battery contact of said second battery [Figure 4, (D-cathode)] being in contact with said first battery, wherein the contacts lie substantially along the longitudinal center plane of the housing.

19. With regards to Claim 15, the examiner has interpreted the at least two second battery contacts associated with the second one of the at least two battery locations to be referring to the anode and cathode of the second battery. It is inherent that such contacts of said battery would be spaced apart in two dimensions. It is noted that a cathode of a typical cylindrical cell battery (i.e. AA or AAA) within a flashlight has a cathode diameter larger than that of an anode, thereby allowing for a two dimensional spacing.

20. With regards to Claim 16, it is inherent that said switch [Figure 4: (22, 26)] in the open (off) position would prevent electrical contact when said two batteries are of distinct sizes. It should also be noted that said second battery contacts (anode, cathode) may not be placed within said housing of flashlight, thereby being in a position to prevent said electrical contact with a battery of different size.

21. With regards to Claim 17, it is inherent that a user may position said second battery so that its contacts are adjacent to only a negative terminal (cathode) of a first cell battery.

22. With regards to Claim 27, Gonzales discloses a battery contact electrically coupled to the light source [Figure 4: (D-anode) in connection with (16)].

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23. With regards to Claim 35, Gonzales discloses a flashlight comprising of a light source [Figure 4: (16)]; a housing [Figure 4: (12, 34)]; at least two battery locations internal of said housing wherein each location is capable of accommodating different battery sizes [Figure 4: (18, 42)]; at least two first battery contacts (anode, cathode) associated with a first battery location [Figure 4: (C)]; at least two second battery contacts (anode, cathode) associated with a second battery location [Figure 4: (D)]; and a switch [Figure 4: (22, 26)] that prevents a closing (on/off of switch) of an electrical circuit that electrically couples said of at least two batteries to said light source when the at least two batteries are of distinct sizes [Column 4, Lines 9-13; 37-49].

24. With regards to Claim 36, Gonzales discloses a first battery contact of said first battery [Figure 4, (C-cathode)] and a first battery contact of said second battery [Figure 4, (D-cathode)] being in contact with said first battery. Gonzales further discloses a second battery contact of said first battery [Figure 4, (C-anode)] and a second battery contact of said second battery [Figure 4, (D-anode)] being in contact with said second battery. Please note that said first and second batteries are of predetermined sizes (C) and (D). Gonzales further discloses a switch that electrically couples said first and second battery contacts (anode, cathode) of a first and second battery [Figure 4, (C, D)]. As noted above in the objections to the claims, it is unclear how the circuit is electrically coupled with regard to position of switch.

25. With regards to Claim 37, the examiner has interpreted the at least two second battery contacts associated with the second one of the at least two battery locations to be referring to the anode and cathode of the second battery. It is inherent that such

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contacts of said battery would be spaced apart in two dimensions. It is noted that a cathode of a typical cylindrical cell battery (i.e. AA or AAA) within a flashlight has a cathode diameter larger than that of an anode, thereby allowing for a two dimensional spacing.

26. With regards to Claim 38, Gonzales discloses a retaining member internal of a housing and capable of impinging upon said at least two batteries when they are positioned in said at least two battery locations [Figure 4, (20, 32)].

27. With regards to Claim 40, Gonzales discloses a flashlight comprising of a light source [Figure 4: (16)]; a housing [Figure 4: (12, 34)]; at least two battery locations internal of said housing wherein each location is capable of accommodating different battery sizes [Figure 4: (18, 42)]; and a switch [Figure 4: (22, 26)] as a means for preventing a closing (on/off of switch) of an electrical circuit that electrically couples said of at least two batteries to said light source when the at least two batteries are of distinct sizes [Column 4, Lines 9-13; 37-49].

28. With regards to Claim 41, Gonzales discloses a retaining member internal of a housing as a means for applying a force and impinging upon said at least two batteries when they are positioned in said at least two battery locations [Figure 4, (20, 32)].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales as applied to Claim 7 above, and further in view of Yamazaki Yoichi (Japanese Publication Number 2000-208117).

Gonzales discloses a flashlight with an electrical mechanical structure comprising of a retaining member as described above in Paragraphs 10 and 16.

Gonzales does not specifically disclose a retaining member comprising a movable arm that pivots about an axis between the housing and the at least two battery locations.

Yoichi discloses a battery seating structure, which may be used in a flashlight [see Abstract], comprising a movable arm that pivots about an axis between a housing and battery [Drawing 3: (B1, C1)].

It would have been obvious to modify the flashlight of Gonzales to incorporate the movable arm of Yoichi to provide a firm holding of a smaller diameter battery within the inner cavity of Gonzales' flashlight and thereby ensuring an electrical communication.

30. Claims 10-12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales as applied to Claim 1 above, and further in view of Peot et al. (U.S. Patent Number 5489485).

With regards to Claim 10, Gonzales discloses a flashlight with an electrical mechanical structure as described above in Paragraph 10.

Gonzalez does not disclose an electro-mechanical structure comprising of a battery tray disposed inside said housing.

Peot discloses a battery removal and replacement system for a plurality of cylindrical battery cells [Figure 1] for use within an electrical appliance [see Abstract].

It would have been obvious to modify the flashlight of Gonzales to incorporate a battery holder of Peot in order to prevent inadvertent short circuiting caused by electrical contact, to allow for prompt removal of battery cells therewithin for proper disposal or recycling, and to ensure firm support of battery cells [please further note Peot's Summary of the Invention]. It is also commonly known that several battery packs/trays (preferably rechargeable) at a user's disposal will allow for greater operation and duration for flashlight use, and thus giving greater flexibility to a user.

31. With regards to Claim 11, it is inherent that the battery tray of Peot will be inserted/removed longitudinally inside and to a position external to said housing of Gonzales' flashlight via an end cap [Figure 4: (19)] being removed.

32. With regards to Claim 12, Gonzales discloses a retaining member comprising a spring [Figure 2: (20)] that extends between the housing [Figure 2, (19)] and the at least two battery locations [Figure 2, (D)]. The retaining member of Gonzales is capable of moving toward and away from said at least two battery locations when a battery tray of Peot is moved longitudinally within said housing of Gonzales' flashlight.

33. With regards to Claim 21, Poet discloses a battery housing with three batteries [Figure 1].

34. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales as applied to Claim 16 above, and further in view of Rachwal (U.S. Patent Number 6388390).

Gonzales discloses a flashlight comprising a switch as described above in Paragraphs 10-12 and 19-20.

Gonzales does not disclose said switch as a two-pole, three position switch.

Rachwal discloses a flashlight that incorporates a two-pole, three position switch [Figure 1: (18); Column 4, Line 60-Column 5, Line 7] in order to provide a user with different intensities of light.

It would have been obvious to modify the flashlight of Gonzales to incorporate the switch of Rachwal, so as to provide a user with more control with respect to light intensity of said flashlight.

35. Claims 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales in view of Peot et al. as applied to Claim 21 above, and further in view of Curiel (U.S. Patent Number 4563727).

Gonzales in view of Peot disclose a flashlight comprising a battery tray as described above in Paragraphs 10-11, 30, and 33.

Gonzalez in view of Peot does not specifically disclose an insulator receptacle disposed between a first and second batteries.

Curiel discloses a housing incorporating a battery receptacle with multiple spacers [Figures 1 and 2: (16, 17, 18)] made of flexible insulating material providing electrical insulation and a means for clamping a battery in a position relative to other elements of an assembly [Column 3, Lines 51-56].

It would have been obvious to modify the battery tray of Gonzales in view of Peot to incorporate the battery receptacle of Curiel to provide electrical insulation and to

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ensure said batteries' positions within said tray. It is also commonly known that battery receptacles/compartments/cartridges/trays are mostly made of a non-conductive material (i.e. plastic) to prevent an electrical short.

36. Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales as applied to Claim 1 above, and further in view of Yamazaki Yoichi.

With regards to Claim 25, Gonzales discloses a flashlight with an electrical mechanical structure comprising of a retaining member as described above in Paragraph 10.

Gonzales does not specifically disclose a retaining member comprising at least two leaf springs whereby each is associated with a respective one of said battery locations.

Yoichi discloses a battery seating structure, which may be used in a flashlight [see Abstract], comprising leaf springs that pivot about an axis between a housing and battery [Drawing 3: (B1, C1)].

It would have been obvious to modify the flashlight of Gonzales to incorporate the leaf springs of Yoichi to provide a firm holding of a smaller diameter battery within the inner cavity of Gonzales' flashlight and thereby ensuring an electrical communication.

37. With regards to Claim 26, Yoichi discloses an apex [Drawing 3, (34)] of each of said at least two leaf springs projecting into one of said battery locations.

38. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzales as applied to Claim 38 above, and further in view of Peot et al.

Gonzales discloses a flashlight with an electrical mechanical structure as described above in Paragraphs 23-26.

Gonzalez does not disclose an electro-mechanical structure comprising of a battery tray disposed inside said housing.

Peot discloses a battery removal and replacement system for a plurality of cylindrical battery cells [Figure 1] for use within an electrical appliance [see Abstract].

It would have been obvious to modify the flashlight of Gonzales to incorporate a battery holder of Peot in order to prevent inadvertent short circuiting caused by electrical contact, to allow for prompt removal of battery cells therewithin for proper disposal or recycling, and to ensure firm support of battery cells [please further note Peot's Summary of the Invention]. It is also commonly known that several battery packs/trays (preferably rechargeable) at a user's disposal will allow for greater operation and duration for flashlight use, and thus giving greater flexibility to a user. Lastly, it is inherent that the battery tray of Peot will be inserted/removed longitudinally inside and to a position external to said housing of Gonzales' flashlight via an end cap [Figure 4: (19)] being removed.

Allowable Subject Matter

39. Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

40. Claims 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the

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limitations of the base claim and any intervening claims. Please note that Claim 19 is dependent of Claim 18 and therefore grouped together under this objection. The claims should be distinct and clear in its limitations.

41. Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please note that Claim 24 is dependent of Claim 23 and therefore grouped together under this objection. The claims should be distinct and clear in its limitations, and it is suggested that the applicant reference said at least two first, second, and third battery contacts in connection with the insulator receptacles, respectively, rather than stating their association (broad) with said first, second, and third battery locations, respectively.

42. Claims 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please note that Claim 29 is dependent of Claim 28 and therefore grouped together under this objection. The claims should be distinct and clear in its limitations.

43. Claims 30 and 31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please note that Claim 31 is dependent of Claim 30 and therefore grouped together under this objection. The claims should be distinct and clear in its limitations.

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44. Claims 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Please note that Claim 33 is dependent of Claim 32 and therefore grouped together under this objection. The claims should be distinct and clear in its limitations. It should be further noted that “displaced by one of a number of predefined distances” is broad and indefinite. It is thereby under the suggestion of the examiner that Claims 32 and 33 be combined.

45. Claims 34 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The claim should be distinct and clear in its limitations, and is further objected to with respect to “conductive,” which lacks antecedent basis.

46. Claim 42 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the current application:

Japanese Publication Number 2000-040402 to Gomi Tatsuhiro;

Japanese Publication Number 10-144273 to Saikawa Isao;

Japanese Publication Number 09-320552 to Imao Tadatomo;

U.S. Patent Number 5606238 to Spellman et al.;

U.S. Patent Number 5686811 to Bushong et al.;

U.S. Publication Number 2003/0189826 to Yoon;

U.S. Publication Number 2004/0090777 to Lee.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH

A handwritten signature in black ink, appearing to read 'John Anthony Ward', with a stylized, cursive script.

**JOHN ANTHONY WARD
PRIMARY EXAMINER**